

REMARKS

Claims 1-29 are pending in the present application. In the Office Action, claims 1-10 and 13-28 were rejected under 35 U.S.C. § 102(e) as allegedly being obvious over Streter (U.S. Patent No. 6,456,858) in view of the subject matter described in the background section of the present application. Claims 11, 12, and 29 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Steter and the background section in view of Corriveau, et al (U.S. Patent No. 5,918,177). The Examiner's rejections are respectfully traversed.

A finding of obviousness under 35 U.S.C. § 103 requires a determination of the scope and content of the prior art, the level of ordinary skill in the art, the differences between the claimed subject matter and the prior art, and whether the differences are such that the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made. *Graham v. John Deere Co.*, 148 USPQ 459 (U.S. S.Ct. 1966).

To determine whether the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made, one should determine whether the prior art reference (or references when combined) teach or suggest all the claim limitations. Furthermore, it is necessary for the Examiner to identify the reason why a person of ordinary skill in the art would have combined the prior art references in the manner set forth in the claims. The required reason may be provided by some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Thus, the absence of a suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings may be evidence that the claims are not obvious. Moreover, there should be a reasonable expectation of

success on the part of a person of ordinary skill in the art. Teaching away by the prior art may constitute *prima facie* evidence that the claimed invention is not obvious.

Independent claims 1 and 18 set forth an apparatus and a method, respectively, for wirelessly paging a mobile device using a network operating according to multiple wireless technologies based at least in part on a technological capability of the mobile device. Claims 1 and 18 also set forth, among other things, determining whether the wireless technology of the mobile unit corresponds to at least one of the multiple wireless technologies of the network based on the accessed information and generating a paging request that is used to determine a geographic area that includes the mobile device. The paging request is generated based at least partially on the technological capability of the mobile device when the wireless technology of the mobile unit corresponds to at least one of the multiple wireless technologies of the network.

As defined in the specification, wireless technologies are the technologies used to support wireless communications between mobile devices and networks. Wireless technologies include personal communications services (PCS) and cellular telecommunication systems. See, *e.g.*, Patent Application, page 2, ll. 25-31. Thus, in order to find a mobile device, a mobile switching center (MSC) sends out a paging request to sets of cells that are in communication with the MSC (and possibly to cells of adjacent MSCs). See Patent Application, page, 2, ll. 11-13. The MSC can generate the paging request to correspond to the technological capability of the mobile device, thereby reducing paging overhead. The reduction in paging overhead can be very significant. For example, if the network supports PCS and cellular and the network knows that the mobile device only supports PCS, the cellular cells need not be paged at all. See Patent Application, page, 8, ll. 29-32.

Streter describes a dual-mode wireless telephone communication system 10 that may be used for wireless communication with dual-mode wireless telephones 12. The dual-mode wireless telecommunications system 10 includes a first wireless telephone system that outputs analog telephone signals for transmission according to a first wireless protocol and a digital wireless system 20 that includes a digital base station 22 for transmission according to a digital-only transmission protocol. See Streter, col. 5, ll. 15-39 and Figure 1. If a mobile telephone switching office 18 detects a prescribed traffic condition based on a blockage factor exceeding a threshold, a control processor 52 may select at least one dual-mode mobile unit 12 for rescan. The control processor 52 then instructs the base stations that are in communication with each selected dual-mode telephone 12 to transmit a rescan control command. The base stations 22 receive the control command from the control processor 52 and transmit the rescan control command to the selected mobile units. See Streter, col 11, line 58- col. 12, line 13. Since the base stations described in Streter are already in communication with the dual-mode telephones 12, Applicants respectfully submit that Streter is completely silent with regard to paging the dual-mode telephones 12.

Furthermore, as admitted by the Examiner, Streter does not teach or suggest providing a paging message that is used to locate the cell that currently includes a selected mobile unit, as set forth in independent claims 1 and 18. Streter is also completely silent with regard to paging the dual-mode telephones 12 using paging requests that are generated based at least partially on the technological capability of the mobile device, as set forth in independent claims 1 and 18. The Examiner notes that the background section of the present application describes providing paging messages to locate mobile devices. However, the background section of the present application teaches that paging messages are broadcast according to a particular paging technology. Thus,

the background section of the present application is completely silent with regard to paging requests that are generated based at least partially on the technological capability of the mobile device.

With regard to the Examiner's rejection of claims 11-12 and 29, Corriveau describes a mobile switching center (MSC) for wirelessly paging a mobile device based on the mobile device's expected service type. For example, some mobile devices may only be capable of receiving voice services, and not asynchronous data services and/or facsimile services. Thus, Corriveau describes modifying pages from the mobile switching centers to include service codes that indicate the service type (e.g. voice service, asynchronous data service, facsimile service) for the call. However, Corriveau fails to describe or suggest paging a mobile device using a network operating according to multiple wireless technologies. Furthermore, as previously admitted by the Examiner on page 3 of the Final Office Action dated May 24, 2005, Corriveau fails to describe or suggest generating a paging request for the mobile device that is based at least partially on the technological capability of the mobile device when the wireless technology of the mobile unit corresponds to at least one of the multiple wireless technologies of the network.

For at least the aforementioned reasons, Applicants respectfully submit that the prior art of record fails to teach or suggest all the limitations of the claimed invention. In particular, the prior art of record fails to teach or suggest generating paging requests based at least partially on the technological capability of the mobile device, as set forth in independent claims 1 and 18.

Applicants further submit that the Examiner has not provided a reason that a person of ordinary skill in the art would be motivated to combine the subject matter in the manner suggested by the Examiner. The Examiner alleges that it would be obvious to combine the paging messages described in the background section with the dual-mode wireless telephone

communication systems 10 described by Streeter to arrive at the subject matter set forth in the pending claims. The Examiner alleges that the motivation for this combination would be to create an effective method of locating a mobile terminal in a wireless network through a paging request. Applicants respectfully disagree and submit that a person of ordinary skill in the art would not be motivated to combine the subject matter described in Streter and the background section to arrive at the claimed invention.

The control messages described by Streter are provided to base stations that are in communication with the selected dual-mode telephones 12. The techniques described in Streter therefore assume that the selected dual-mode telephones 12 have already been located and the cells that include the dual-mode telephones 12 are already known. For example, the control messages described in Streter may be broadcast to dual-mode telephones 12 that initiate a telephone call using a preferred CDMA system when it is not favorable to use the CDMA system. See Streter, col. 5, ll. 62-65. Consequently, a person of ordinary skill in the art would conclude that there is no need to provide any paging messages because there is no need to locate the cells including the selected dual-mode telephones 12. Thus, contrary to the Examiner's allegation, Applicants respectfully submit that the prior art of record does not provide a person of ordinary skill in the art any motivation to implement paging messages in the system described by Streter.

To the contrary, Applicants respectfully submit that the cited references teach away from the Examiner's proposed combination and modification of the prior art of record. Modifying the techniques described by Streter to include transmitting a paging message to dual-mode telephones 12 that have already been located would unnecessarily increase overhead on the paging channel because there is no need to transmit a paging message when communication with

the dual-mode telephone 12 has already been initiated and/or established. The background section of the present application indicates that paging messages should be provided in a manner that reduces paging overhead. See Patent Application, page 2, ll. 11-15. Thus, the prior art of record teaches away from the Examiner's proposed modification of the prior art, which would increase paging overhead. In the absence of any evidence to the contrary, Applicants respectfully submit that that teaching away by the prior art constitutes *prima facie* evidence that the claimed invention is not obvious.

Furthermore, since the cited references provide no motivation for the Examiner's proposed modification of the prior art and in fact teach away from many aspects of the Examiner's proposed modification of the prior art, Applicants respectfully submit that the only motivation for the entirety of the claimed invention is provided by the present application. Accordingly, Applicants respectfully submit that the Examiner is using the present application as a roadmap for combining the cited references. Applicants respectfully submit that this is an impermissible use of hindsight reasoning.

For at least the aforementioned reasons, Applicant respectfully submits that the Examiner has failed to make a *prima facie* case that the present invention is obvious over Streter and the background section in view of Corriveau. Applicant requests that the Examiner's rejections of claims 1-29 under 35 U.S.C. 103(a) be withdrawn.

For the aforementioned reasons, it is respectfully submitted that all claims pending in the present application are in condition for allowance. The Examiner is invited to contact the undersigned at (713) 934-4052 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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